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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,524	08/07/2001	Chun Wang	ATL0001670	1770

34456 7590 01/27/2005  
 TOLER & LARSON & ABEL L.L.P.  
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 AUSTIN, TX 78746

EXAMINER

NGUYEN, HAU H

ART UNIT	PAPER NUMBER
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2676

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/923,524

Applicant(s)

WANG ET AL.

Examiner

Hau H Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-34 is/are allowed.
- 6) ☒ Claim(s) 35-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Response to Arguments***

1. Applicant's arguments filed August 19, 2004 with respect to the rejections of claims 1-34 have been fully considered and are persuasive. Therefore, the rejection for these claims has been withdrawn. However, upon further consideration of claims 35-41, a new ground of rejection is made in view of Artieri (U.S. Patent No. 6,104,751).

***Allowable Subject Matter***

2. Claims 1-34 are allowed.

***Reasons for Allowable Subject Matter***

3. The following is an examiner's statement of reasons for allowable subject matter:

The prior art taken singly or in combination does not teach or suggest, a method, among other things, comprising

receiving at a router, one or more data access requests from one or more of the plurality of clients, and routing data access requests from the router to a corresponding memory controller (claim 1);

a router having a plurality of first input ports coupled to the data access port of each of the plurality of clients, a second input port coupled to the output port of the storage module, a first plurality of output ports, and a second plurality of output ports, wherein the router is to route data at each one of the plurality of first input ports to a respective output port of the first or second plurality of output ports based upon the data stored in the storage module (claim 24);

The closest prior art, reference Kilgariff et al. (U.S. Patent No. 5,999,183) teaches a graphics subsystem comprising a plurality of graphics modules coupled together through one or

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more routing devices. Each graphics module includes a memory controller to receive a request from a requesting agent, decodes the memory address to determine it is on-chip or off-chip. It is off-chip transfer information to another device.

However, reference Kilgariff et al. teaches routing transfer information from the memory controller, but not from the router, and the router as taught by Kilgariff et al. does not include input ports and output ports as claimed.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 35-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Artieri (U.S. Patent No. 6,104,751).

Referring to claims 35, 36, 39, and 40, as shown in Fig. 3, Artieri teaches an MPEG decoder comprising a memory bus MBUS, couples the picture memory 15 to the compressed data input bus CDin, to the input of the variable length decoder (VLD) 10, to the input of the half-pixel filter 14, and to the input of a display controller 18. Exchanges on the memory bus MBUS are controlled by a memory controller (MCU) 24 that serves to carry out, upon request of the FIFOs, transfer operations between these FIFOs and the picture memory. To achieve this purpose, the memory controller 24 receives a plurality of requests RQ and provides corresponding acknowledgements ACK (col. 6, lines 34-51). As shown in Fig. 8, Artieri teaches four MPEG decoders connected so as to process the four slices of the high definition picture. The input of each MPEG decoder is connected to the compressed data bus CDin, and each decoder operates with a respective picture memory (col. 20, lines 14-25). Also, between each decoder, there is provided an exchange system allowing a decoder to provide the data of its slice to its memory and to provide the same data to the memories of the adjacent decoders through an exchange bus XBUS (col. 20, lines 59-67, and col. 21, lines 1-14).

In regard to claim 37, Artieri teaches the memory controller to read the blocks in the first buffer memory and to write them in the picture memory at addresses corresponding to the specific slice, and to read the blocks in the second buffer memory and to write them at addresses corresponding to a margin (Fig. 9, col. 5, lines 53-65).

In regard to claims 38 and 41, Artieri teaches the system includes a plurality of processing elements using decoding parameters, and a memory bus controlled by a memory controller to exchange data between the processing elements at rates adapted to the processing

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rates of these elements, and to store in a picture memory data to be processed or re-used (col. 3, lines 40-49).

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is: 703-305-4104. The examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 703-308-6829.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

H. Nguyen

01/21/2005



**MATTHEW C. BELLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600**